<u>-</u>		-		05		Docket Number (Optional) 300-80100	<del>.</del>	Application Number	608,935	
	INFORMATION DISCLOSURE CHATION			Applicant(s)						
(Use several sheets if necessary)						Nicholas Grant Rasmussen et al.  Filing Date Group Art Unit				
					June 27, 2003		Unknown			
E TRADENTS.S. PATENT DOCUMENTS										
*EXAMINER INITIAL	REF		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPRO	
									.,	
		-								
•										
								_		
					<del></del>		<u> </u>	_		
				,						
					FOREIG	N PATENT DOCUMENTS				
	REP		DOCUMENT NUMBER DATE			COUNTRY	CLASS	SUBCLASS	Trans YES	lation NO
									765	טא
	-									
			<u> </u>					Date, Pertinent Pa		ار ا
20	>		J.F. Blinn, "Light Reflec   1982, pps. 21-29. 	tion Functions fo	or Simulat	ion of Clouds and Dusty Su	irfaces", Co	omputer Graphic	cs Volume	16, No. 3,
40										
<del>4</del> G	K. Brodlie and J. Wood, "Recent Advances in Volume Visualization", Computer Graphics Forum 20, 1, 2001, pps. 125-148. (Copy of Submitted Article, pages 1-23.)									
DV A BARRET		)	2 00							
EXAMINE	<u>"</u> →	۲۰ (	Suil )			DATE CONSIDERED	9/5	/200	0	
	EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.									

Form PTO-A820 (also form PTO-1449)

			Docket Number (Optional)	Application Number						
			300-80100	10/608,935						
INF	ORM	LATION DISCLOSURE CITATION	Applicant(s)	·						
i		(Use several sheets if necessary)	Nicholas Grant Rasmussen et al.							
İ			Filing Date Tune 27, 2003	Group Art Unit Unkn wn						
			June 27, 2003	Unkn wii						
*EXAMINER		OTHER DOCUMENTS (Including Author, Title								
1300	OFFICE OF	M. Desbrun and MP. Cani, "Smoothed Particles: Animation and Simulation '96, Proceedings of EG's G. Hegron, Eds., 1996, pps. 61-76. Published Under	M. Desbrun and MP. Cani, "Smoothed Particles: A New Paradigm for Animating Highly Deformable Bodies", In Computer Animation and Simulation '96, Proceedings of EG Workshop on Animation and Simulation, Springer-Verglag, R. Boulic and G. Hegron, Eds., 1996, pps. 61-76. Published Under the Name Marie-Paule Gascuel.							
SATEMIS TRADE		Y. Dobashi et al., "A Simple, Efficient Method for Proceedings, Annual Conference Series, 2000, pps.	7. Dobashi et al., "A Simple, Efficient Method for Realistic Animation of Clouds", In SIGRRAPH 2000 Conference Proceedings, Annual Conference Series, 2000, pps. 19-28.							
2G		D.S. Ebert and R.E. Parent, "Rendering and Anima A-Buffer Techniques", In Proceedings of SIGGRAL Annual Conference Series, ACM, 1990, pps. 19-28.	D.S. Ebert and R.E. Parent, "Rendering and Animation of Gaseous Phenomena by Combining Fast Volume and Scanline A-Buffer Techniques", In Proceedings of SIGGRAPH 1990, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1990, pps. 19-28.							
26 26		D. Enright et al., "Animation and Rendering of Cor Press/ACM SIGGRAPH, Computer Graphics Proc	mplex Water Surfaces", In Proceeding :eedings, Annual Conference Series, A	ts of SIGGRAPH 2001, ACM CM, 2002, pps. 736-744.						
26		R. Fedkiw et al., "Visual Simulation of Smoke", In Proceedings of SIGGRAPH 2001, ACM Press/ACM SIGGRAPH, E. Fiume, Ed., Computer Graphics Proceedings, Annual Conference Series, ACM, 2001 pps. 15-22.								
Z		N. Foster and R. Fedkiw, "Practical Animation of I SIGGRAPH, Computer Graphics Proceedings, Ann	N. Foster and R. Fedkiw, "Practical Animation of Liquids", In Proccedings of SIGGRAPH 2001, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 2001, pps. 23-30.							
24		N. Foster and D. Metaxas, "Realistic Animation of (Paper, pp. 1-24.)	. Foster and D. Metaxas, "Realistic Animation of Liquids", Graphical Models and Image Processing 58, 1996, pps. 471-483. Paper, pp. 1-24.)							
<i><b>E</b></i>		N. Foster and D. Metaxas, "Modeling the Motion of a Hot, Turbulent Gas", In Proceedings of SIGGRAPH 1997, ACM Press/ ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1997, pps. 181-188. (Paper, pp. 1-9, only first page numbered.)								
29		G.Y. Gardner, "Visual Simulation of Clouds", In P Graphics Proceedings, Annual Conference Series, A	ACM, 1985, pps. 297-384.	·						
2G 2G		R.A. Gingold and J.J. Monaghan, "Smoothed Parti Mon. Not. R. Astron. Soc 181, 1977, pps. 375-389.	cle Hydrodynamics: Theory and Appl	ication to Non-Spherical Stars",						
89		G. Yngve et al., "Animating Explosions", In Proceedings of SIGGRAPH 2000, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 2000, pps. 29-36.								
RG		J. Stam, "Stable Fluids", In SIGGRAPH 99 Conference Proceedings, Annual Conference Series, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1999, pps. 121-128.								
EXAMINER	<u> </u>	Gill	DATE CONSIDERED 9/5/	2006						
*EXAMINER: I	*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and									

P09B/REV04

not considered. Include copy of this form with next communication to applicant.

	نسند		Sector Number (Optional)	Application Number				
		· ·	Docket Number (Optional) 300-80100	10/608,935				
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)			Applicant(s) Nicholas Grant Rasmussen et al.					
			Filing Date	Group Art Unit				
			June 27, 2003	Unknown				
•EXAMINER	l	OTHER DOCUMENTS (Including Author, Title	· · · · · · · · · · · · · · · · · · ·					
S June	OFFICE	J.T. Kajiya and B.P. Von Herzen, "Ray Tracing Volume Densities", In Proceedings of SIGGRAPH 1984, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference, ACM, 1984, pps. 165-174.						
SATENT & TRADE	New York	A. Lamorlette and N. Foster, "Structural Modeling of Flames for a Production Environment", In Proceedings of SIGGRAPH 2002, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 2002, pps. 729-735.						
24		R. Szeliski and D. Tonnesen, "Surface Modeling wi 1992, pps. 185-194.	th Oriented Particle Systems", Com	puter Graphics, SIGGRAPH Proc.,				
RG		M. Levoy, "Display of Surfaces From Volume Data (Paper, pp. 1-10.)	", IEEE Computer Graphics and Ap	oplications 8, 3, 1998, pps. 29-37.				
29		J. Steinboff and D. Underhill, "Modification of the Euler Equations for "Vorticity Confinement": Application to the Computation of the Interacting Vortex Rings", Physics of Fluids 6, 8, 1994, pps. 2738-2744.						
<b>K</b> G		R. Miyazaki et al., "Simulation of Comuliform Clouds Based on Computational Fluid Dyanmics", Proc. Eurographics 2002, Short Presentation, 2002, pps. 405-410.						
29		M. Neff and E. Fiume, "A Visual Model for Blast W 193-202. (Paper, pp. 1-10, unnumbered.)	Vaves and Fracture", In Proceedings	of Graphics Interface 1999, 1999, pps.				
26		D. Nguyen, "Physically Based Modeling and Animation of Fire", In Proceedings of SIGGRAPH 2002, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference, ACM, 2002, pps. 721-728.						
24		J. Wejchert and D. Haumann, "Animation Aerodyn	namics", Computer Graphics, Volum	ie 25, No. 4, 1991, pps. 19-22				
RG		K. Perlin, "An Image Synthesizer", In Proceedings Proceedings, Annual Conference Series, ACM, 1985	of SIGGRAPH 1985, ACM Press/A 5, pps. 287-296, Vol. 19, No. 3.	CM SIGGRAPH, Computer Graphics				
RG		M.J. Rudolf and J. Raczkowski, "Modeling the Mo Volume 19, No. 3, 2000.	tion of Dense Smoke in the Wind Fie	ld", Computer Graphics Forum,				
RG		G. Sakas, "Fast Rendering of Arbitrary Distributed	I Volume Densities", In Proceedings	of Eurographics, 1990, pps. 519-530.				
EXAMINER	Z	Guill	date considered 9/5	1/2006				

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

المستجد بالمراجعة	_			to the standard				
			Docket Number (Optional) 300–80100	Application Number 10/608,935				
INF	ORMA	ATION DISCLOSURE CITATION	Applicant(s)					
	(	(Use several sheets if necessary)	Nicholas Grant Rasmussen et al	Group Art Unit				
			Filing Date June 27, 2003	Unknown				
*EXAMINER		OTHER DOCUMENTS (Including Author, Titl	<del></del>					
INITIAL		L. Yaeger and C. Upson, "Combining Physical and Visual Simulation - Creation of the Planet Jupiter for the Film 2010". In Proceedings of SIGGRAPH 1986, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference						
& E J		Proceedings of SIGGRAPH 1986, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1986, pps. 85-93.						
68 L		· · · · · · · · · · · · · · · · · · ·						
4	B	J. Stam and E. Flume, "Turbulent Wind Fields for Gaseoius Phenomena", In Proceedings of SIGGRAPH 1993, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1993, pps. 369-376.						
W Color		Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1993, pps. 369-376. (Paper, pp. 1-7, unnumbered.)						
WATRE								
		G. Sakas, "Modeling and Animating Turbulent Gas	seous Phenomena Using Spectral Syn	thesis", The Visual Computer 9, 1993,				
7.6		pps. 200-212.						
~								
		K. Mueller et al., "Splatting Without The Blur", pp	os. 1-9.					
a ca								
	-	L. Westover, Numerical Design Limited, "Footprin Number 4, August 1990, pps. 367-376.	t Evaluation For Volume Rendering"	, Computer Graphics, Vol. 24,				
		Number 4, August 1990, pps. 307-370.						
7								
-								
•								
			**************************************	<del></del>				
	:							
	;							
EXAMINER		Guill	DATE CONSIDERED	6				
	Ľ,	Gull	9/5	/2006				

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

## FORM PTO-1449 Application N . Dock t Number (Opti nal) 300-80100 10/608,935 INFORMATION DISCLOSURE CITATION Applicant(s) IN AN APPLICATION Nich las Grant Rasmuss n t al. Filing Date **Group Art Unit** (Use several sheets if necessary) June 27, 2003 Unkn wn **U.S. PATENT DOCUMENTS DOCUMENT NUMBER EXAMINER** DATE NAME CLASS SUBCLASS FILING DATE INITIAL IF APPROPRIATE FOREIGN PATENT DOCUMENTS **DOCUMENT NUMBER** DATE COUNTRY **CLASS SUBCLASS Translation** Yes OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) M.N Gamito, "Two-Dimensional Simulation of Gaseous Phenomena Using Vortex Particles", In Proceedings of the 6th Eurographics Workshop on Computer Animation and Simulation, Springer-Verlag, 1995, pps. 3-15. S. Hadap and N. Magnenat-Thalmann, "Modeling Dynamic Hair as a Continuum", Computer Graphics Forum, Volume 20, 2001, Number 3. (Paper, pps. 1-10, unnumbered). W. Lorensen and H. Cline, "Marching Cubes: A High-Resolution 3D Surface Construction Algorithm", Computer Graphics, Volume 21, Number 4, 1987, pps. 163-169. J.F. O'Brien and J.K. Hodgins, "Graphical Modeling and Animation of Brittle Fracture", In Proceedings of SIGGRAPH 1999, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1999, pps. 137-146. K. Sims, "Particle Animation and Rendering Using Data Parallel Computation", Computer Graphics Volume 24, Number 4, 1990, pps. 405-413. J. Tessendorf, "Simulating Ocean Water", In Simulating Nature: Realistic and Interactive Techniques, SIGGRAPH 2002, Course Notes 9, pps. 1-1 thru 7-31. B. Wyvill et al., "Animating Soft Objects", The Visual Computer V. 2(4), 1986, pps. 235-242.

L.D. Landau and E.M. Lifshitz, "Fluid Mechanics", 2<sup>nd</sup> Edition, Butterworth-Heinermann, Oxford, 1998.

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP \$609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

PTO/SB/08 (10-92)

**EXAMINER** 

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

2006

					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
					Docket Number (Optional) 300-80100	Application Number 10/608,935			
101	INFO	RMATION DISCLOSURE Use several sheets if necessa	E CITATION		Applicant(s) Nicholas Grant Rasmu	at al		100,733	<del></del> -
/ .nn ,	n E 20	Use several sheets if necessa	ıry)	1	Filing Date		Group Art Unit		
1000	0 5 20(	(بير 36		!	June 27, 2003	<u>;                                    </u>	1 -	2123	
To The	·osak	\$	U.S.	. PATENT	DOCUMENTS				
•EXAMINER INITIAL	REP	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	1	G DATE
B411-0	$\vdash$						<del> </del>	IF APPRO	OPRIATE
	<u> </u>		<u> </u>	<u> </u>		<u> </u>		<b></b>	
	_'			1					
	<del>                                     </del>					<del> </del>	<del></del>	<del> </del>	
				<u> </u>					
	<u></u>		U.S. PATENT	Γ APPLICA	ATION PUBLICATIONS	<u></u>		<u> </u>	
•EXAMINER	REF	DOCIDADAT MINIRER	1 I	<u> </u>	<del></del>	7		FILIN	G DATE
INITIAL	KE.	DOCUMENT NUMBER	DATE	<b></b>	NAME	CLASS	SUBCLASS		OPRIATE
			FOREI	IGN PATE	NT DOCUMENTS	<u></u>			
	REF	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	Trea	station
				-	-	ļ		YES	NO
	<del></del>		+			<del> </del>		-	
	<b> </b>			<u> </u>					
	, <u>'</u>						1		
	<del></del>		OTHER D	OCUMENT	TS (Including Author,	Title, Date, i	Pertinent Pages, E	(c.)	<u></u>
	$\top$	Manuel Noronha Gamit	to, "Simulation of	Turbulen	at Flow Using Vortex Partic				
RG RG									
	+	Jos Stam, et al., "Depict	ting Fire And Oth	er Gaseou	is Phenomena Using Diffus raphics Proceedings, Annu	ion Process	es", In Proceedi	ngs of SIG	GRAPH
$\mathcal{X}_{\Lambda}$		(unnumbered).	. SIGGRAPH, Coi	mputer Gr	raphics Proceedings, Annu	al Conferen	ce Series, ACM,	, 1995, pps.	. 129-136,
DVA MINE		- 300	<del></del>	_					
EXAMINE	⊀.	. Gull			DATE CONSIDERED		/2006		
EXAMINEI not consider	R: Initia red. In	al if citation considered, whether c clude copy of this form with next o	or not citation is in communication to a	conformano	ce with MPEP Section 609; D	raw line thro	ugh citation if not	in conform	ance and

Form PTO-A820 (also form PTO-1449) P09A/REV05

Patent and Trademark Office \* U.S. DEPARTMENT OF COMMERCE

I				Docket Number (Optional)							
·											
	MEAL	RMATION DISCLOSURE		300-80100 10/608,935 Applicant(s)							
(Use several sheets if necessary)				Nicholas Grant Rasm	Nicholas Grant Rasmussen, et al.						
				Filing Date June 27, 200				Group Art Unit 2123			
		<u>,</u>	TI S	PATENT DOCUMENTS	, <u>,,                                  </u>						
	—т		1	TATENI DOCUMENTS	<del></del>	1		<del></del>			
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING IF APPRO				
-		<del> </del>	<del>                                     </del>			<del>                                     </del>					
	1										
					<del></del>	<del> </del>					
						ļ					
	- 1										
			U.S. PATENT	APPLICATION PUBLICATIONS			·				
*EXAMINER	REP	DOCUMENT NUMBER	DATE	NAME	CLASS	Campon Loca	FILING	DATE			
INITIAL	AE'	DOCUMENT NUMBER	DATE	NAMB	CLASS	SUBCLASS	LASS FILING DATE IF APPROPRIATE				
							-				
			<del> </del>								
			-	<u> </u>		<del> </del>					
			FOREIG	GN PATENT DOCUMENTS				·			
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Trans				
			<del> </del>	<del></del>			YES	NO			
}											
			<del> </del>		<u>-                                    </u>			·			
			<u> </u>								
			OTHER DO	OCUMENTS (Including Author	or, Title, Date, Pe	rtinent Pages, Et	c.)				
$\overline{\bigcirc}$		<b>I*SIGGRAPH 2002 COL</b>		ru 7-31, with attention to J. Tesse ulating Ocean Surfaces" (pages no				1 thru			
XG		3-19 plus 44 page chart p	presentation "Sim	ulating Ocean Surfaces'' (pages no	ot numbered).						
····											
EXAMINER	4	C. Guian		DATE CONSIDERED	9/5/	2001	5				
EXAMINER not consider	t: Initia	l if citation considered, whether of lude copy of this form with next of	or not citation is in c	conformance with MPEP Section 609;				ance and			

Form PTO-A820 (also form PTO-1449)

P09A/REV05

Patent and Trademark Office \* U.S. DEPARTMENT OF COMMERCE